

FEATURES

For general AF applications

High collector current

High current gain

Low collector-emitter saturation voltage

Marking

BC818-16	BC818-25	BC818-40
6E	6F	6G

BC818-16 (NPN)

BC818-25 (NPN)

BC818-40 (NPN)



MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	500	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V_{CB}	$I_C = 10\mu A, I_E = 0$	30		V
Collector-emitter breakdown voltage	V_{CE}	$I_C = 10mA, I_B = 0$	25		V
Emitter-base breakdown voltage	V_{EB}	$I_E = 10\mu A, I_C = 0$	5		V
Collector cut-off current	I_{CB}	$V_{CB} = 25V, I_E = 0$		0.1	μA
Emitter cut-off current	I_{EB}	$V_{EB} = 4V, I_C = 0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1V, I_C = 100mA$	100	630	
	$h_{FE(2)}$	$V_{CE} = 1V, I_C = 300mA$	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$		0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$		1.2	V
Base-emitter voltage	V_B	$V_{CE} = 1V, I_C = 500mA$		1.2	V
Collector capacitance	C_{ob}	$V_{CB} = 10V, f = 1MHz$		6	pF
Transition frequency	f	$V_{CE} = 5V, I_C = 50mA, f = 100MHz$		170	MHz

CLASSIFICATION OF h_{FE}

Rank	6E	6F	6G
Range	100-250	160-400	250-630

BC818-16

BC818-25 Typical Characteristics

BC818-40

